



HITACHI

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U.S. Nuclear Regulatory Commission
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Attn: Document Control Desk

Subject: Annual Report for VBWR, 2008
Reference: License DPR-1, Docket 50-18
Enclosure: Annual Report No. 44

Enclosed is the Annual Report No. 44 for the deactivated Vallecitos Boiling Water Reactor (VBWR) located at Vallecitos Nuclear Center near Sunol, California.

If there are any questions or additional information required, please contact me at the number above.

Sincerely,

Donald R. Krause,
Manager,
Regulatory Compliance and
Environment, Health, and Safety

c: John Buckley (email)

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NM5501

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GE Hitachi Nuclear Energy

*Vallecitos Nuclear Center
Sunol, California*

**VALLECITOS BOILING WATER REACTOR
(DEACTIVATED)**

**ANNUAL REPORT NO. 44
FOR THE YEAR 2008**

**LICENSE DPR-1
DOCKET 50-18**

MARCH 2009

**Vallecitos Boiling Water Reactor
(Deactivated)**

Annual Report No. 44

GE Hitachi Nuclear Energy has maintained the Vallecitos Boiling Water Reactor (VBWR) in a deactivated status under the authority of Amendment No. 19 to License DPR-1, Docket 50-18. In this annual report, a summary of the status of the facility for the period of January 1, 2008 to December 31, 2008 is presented, as required by paragraph 5.d.2 of the license.

1.0 SUMMARY

VBWR – 2008 Component Removal Activities

Component removal activities within the VBWR containment commenced during October 2007. The effort was completed in 2008. All reactor systems have been removed except for the reactor vessel. All waste has been packaged and removed from the containment. The water level within the reactor vessel was monitored and remained essentially constant throughout the report period.

One incident (Incident 08-04) occurred during the remediation activities. A small fire occurred when sparks from hot work traveled downward to another level where a small Class A fire occurred. There was no personnel injury, equipment damage or environmental release.

Radiation levels remain essentially unchanged.

2.0 STATUS OF FACILITY

In accordance with written procedures, the Facility Manager controls access to the containment building and general systems. The facility continues to be in deactivated status in safe storage condition.

3.0 RADIATION AND CONTAMINATION

Complete radiation and contamination surveys of the facility indicate that levels remain low. Results of the surveys are presented in Table 1. The radiation/contamination levels listed are representative but not necessarily maximum values.

Dismantling operations did not significantly increase the site's airborne radiological effluent release rate. Continuous general air sampling was performed within the VBWR containment during dismantling operations for personnel monitoring and to assess the potential release of radiological effluents to the environment. Using The Comply Computer Code, a conservative

estimate of the Effective Dose Equivalent to the public from VBWR was less than $1.2 \text{ E-2 mrem/year}$.

4.0 ACTIVITIES

Routine inspections were conducted during this report period. Component removal activities started in October 2007 and are described in Section 1.0, Summary.

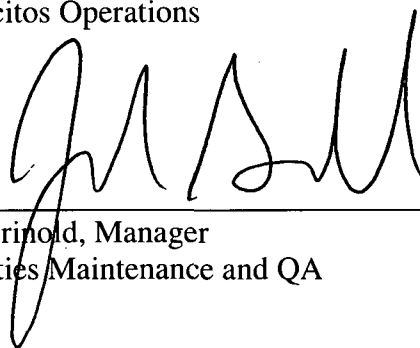
5.0 ORGANIZATION

The organizational structure was changed during 2008. The Vallecitos Nuclear Center (VNC) Site Manager remained D. W. Turner. The VBWR Facility Manager was C. W. Bassett and changed to J. L. Grinold. The Manager, Regulatory Compliance and EHS was L. L. Mahlahla and changed to D. R. Krause.

6.0 CONCLUSION

GE Hitachi Nuclear Energy concludes that the deactivated VBWR is being maintained in a safe shutdown condition. The inspections, access control, and administratively controlled activities ensure maximum protection for the public health and safety. The procedures will be continued to maintain this high level of protection.

GE Hitachi Nuclear Energy
Vallecitos Operations

A handwritten signature in black ink, appearing to read 'JL Grinold', is written over a horizontal line.

J.L. Grinold, Manager
Facilities Maintenance and QA

Table 1
Radiation and Contamination Level Data
Vallecitos Boiling Water Reactor (Deactivated)

Date of Measurement:	Contamination Levels					
	Radiation Levels (mR/h Gamma)		Surface Smears Beta-Gamma* (cpm/ft ²)		Airborne Beta-Gamma [†] ($\mu\text{Ci/cc} \times 10^{-10}$)	
	12/07	12/08	12/07	12/08	12/07	12/08
Reactor Enclosure, Main Floor						
General	<1.0	<1.0	300	150	0.03	0.02
Top of Spent Fuel Pit Cover	<1.0	<1.0	<100	200	0.04	Not taken
Reactor Basement					0.04	0.02
Upper Level, Field	<1-1.5	<1.0	--	--	--	--
West Ladder, Bottom	5.5	5.0	400	2200	--	--
East Ladder, Bottom	<1.0	<1.0	600	2000	.03	Not taken
Between Recirculation Pumps (located 2 feet above deck) (* RCPs removed)	2.5	<1.0	--	--	--	--

Note:

Radiation levels, surface smears, and air samples may vary from survey to survey as they are taken in general areas rather than at specific locations.

* For conversion to d/m, assume an instrument efficiency of 20%.

[†] 24-hour decayed values